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ETHNOBOTANICAL NOTES ON CUCURBITS
OF THE NORTHWEST AMAZON

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Recent ethnobotanical field studies in the northwestern Amazon, especially in Colombia, have revealed a series of interesting uses of cucurbitaceous species, especially as medicines. These uses serve to support the growing belief that the Cucurbitaceae deserves more intensive phytochemical investigation for biodynamic secondary organic constituents.

Many of the following notes on uses of Amazonian cucurbits were made during my 14 years of ethnobotanical studies in the northwest Amazon from 1941 to 1954 or on subsequent annual trips to the region. I have drawn upon the field observations of my former student, Dr. H. V. Pinkley, and upon notes published by P. Le Cointe in his *A Amazônia Brasileira III. Árvores e Plantas Uteis* (Livreria Classica, Belém do Pará, 1934) and upon the collections of several other botanists who have worked in the area.

I am indebted to Dr. C. Jeffrey of the Royal Botanic Gardens, Kew, for identification of most of the collections cited below. Most of the specimens are preserved in one or more of the following institutions: the Economic Herbarium of Oakes Ames and the Gray Herbarium, both of Harvard University, and the Herbario Nacional de Colombia in Bogotá.

Cayaponia glandulosa (*P. et E.*) *Cogniaux* in *A. et C. DeCandolle*, *Monogr. Phan.* 3 (1881) 755.

COLOMBIA: Comisaría del Amazonas, Río Loretoyacu, "Vine up to 20 m long, forming great tangles along river bank. Calyx tube green; petals fleshy, green.

Fruit ellipsoidal, 3.7×23 cm, ripening red. Monoecious", January 28–February 7, 1969. *Plowman, Lockwood, Kennedy et Schultes* 2369.

PERU: Departamento del Amazonas, Río Cenepa, Quebrada Huampamí. May 1973. *Kayap* 819.

The local name of *Cayaponia glandulosa* is reported to be *yuwish* in the Río Cenepa region of Peru. The Tikunas of the Río Loretoyacu chop up the fruits and boil them into a tea which is taken to relieve "liver complaints." They also dry and powder the leaves and young stems of this vine to prepare an insect repellent dust for use in hammocks and clothes.

Cayaponia kathermatophora *R. E. Schultes* in Bot. Mus. Leaflet. Harvard Univ. 20 (1964) 339.

This extensive vine is cultivated by the Indians in the middle course of the Río Apaporis of Colombia for its unusually large, shining, brown seeds which, when hollowed out, are employed in the manufacture of anklets and necklaces. The Makunas know the plant as *ka'-moo-ka*. The Taiwanos call it *pa-moo'-pa*. In the Kabuyarí language, it is *wa'-cha*; in Puinave *way-yot'*; and in Matapie *wa'yaw*.

Cayaponia ophthalmica *R. E. Schultes* in Bot. Mus. Leaflet. Harvard Univ. 20 (1964) 321.

The soft green bark of *Cayaponia ophthalmica* is employed in preparing a soothing wash for treating conjunctivitis, without a doubt the most widespread disease amongst the Indians of the northwest Amazon. The vine, a strong heliophile, is frequently cultivated by Indians in the basin of the Río Apaporis of Colombia. Like so many cultivated plants of these Indians, it grows almost without care along the edge of agricultural plots, where *Manihot* and *Erythroxylon* are set out, but it is definitely planted and cared for for its medicinal use.

A spot test for alkaloids with Dragendorff reagent indicates that the plant from which this collection came is negative.

Cayaponia Ruizii *Cogniaux* in A. et C. DeCandolle, Monogr. Phan. 3 (1881) 794.

COLOMBIA: Comisaría del Putumayo, Río Guamués, Santa Rosa. November 28, 1966. *Pinkley* 564.

ECUADOR: Provincia del Napo, Río Aguarico, Dureno. "Fruit orange when ripe, one-seeded." October 9, 1966. *Pinkley* 506.

According to the collector, the seed is edible when roasted for five minutes. The Kofáns call this plant *sau-ra'-kit-sa* and *kan-bi'-fa-cho*.

Cayaponia triangularis *Cogniaux* in A. et C. DeCandolle, Monogr. Phan. 3 (1881) 784.

In the Brazilian Amazon, the fruits and roots of this plant, known as *purga de gentio*, are valued as a strong purgative (Le Cointe, loc. cit.).

Cayaponia sp.

ECUADOR: Provincia del Napo, Río Aguarico, Dureno. *Pinkley* 222 (Cited in H. V. Pinkley: *The Ethnoecology of the Kofán Indians* [Ph.D. thesis, ined.] Harvard University (1973).

Stems of this species of *Cayaponia* are reportedly burned and, amongst the Kofáns, the ashes are applied to external sores on the ankles. The Kofán name of this vine is *cho-rok-o-pee-sě'-hě-pa*.

Cyclanthera explodens *Naudin* in Ann. Sci. Nat., ser. 4, 12 (1859) 160.

C. brachystachya (Ser.) *Cogniaux*, Diagn. Cucurb. 2 (1877) 64.

COLOMBIA: Comisaría del Putumayo, Valle de Sibundoy, ca. 2200 m. "Vine, 4 m; flowers and fruit green. Common in borders." March 17, 1963. *Bristol* 640.

The Kamsá Indians of Sibundoy call this species *semarrón-shajush* and consider it a medicine, but the precise medicinal use is not indicated by the collector.

Fevillea amazonica (*Cogn.*) *C. Jeffrey* in Kew Bull. 16 (1962) 199.

COLOMBIA: Comisaría del Amazonas, Río Loretoyacu. August-September 19, 1945. *Schultes* 6732.

Amongst the Tikunas, the oil from the seeds of *Fevillea amazonica* is reputed to hasten the healing of serious burns when applied three or four times a day over a period of ten days.

Fevillea cordifolia *Linnaeus*, Sp. Pl. (1753) 1013.

ECUADOR: Provincia del Napo, Río Aguarico, Dureno. February 7, 1966. *Pinkley* 103.

The Kofáns call this vine *ata'-cho* and extract an oil from the seeds to polish necklaces made of various kinds of seeds. At one time, according to the collector, the seed was burned for light.

Gurania acuminata *Cogniaux*, Diagn. Cucurb. 1 (1877) 31.

COLOMBIA: Comisaría del Amazonas, Río Caquetá, La Pedrera, "Vine, flowers orange", April 1944. *Schultes* 4880;—Same locality and date. *Schultes* 5887.

In the region of La Pedrera, the natives believe that a tea of the leaves of *Gurania acuminata* is one of the most effective vermifuges.

Gurania bignoniacea (*P. et E.*) *C. Jeffrey* in Kew Bull. 33 (1978) 354.

COLOMBIA: Comisaría del Amazonas, Río Putumayo, road between Caucaya and La Tagua. May 17, 1942. *Schultes* 3750.—Río Amazonas, Leticia. November 1948. *Schultes et López* 10401.

Comisaría del Vaupés, Río Apaporis, mouth of Río Pacoa. "Vine. Flowers orange. Fruit with light and dark green patches." July 17, 1951. *Schultes et Cabrera* 13045.—Jinogojé, at mouth of Río Piraparaná. "Flowers orange." February 27, 1952. *Schultes et Cabrera* 15657.—Soratama. "Climber. Flowers red and yellow." March 26, 1952. *Schultes et Cabrera* 16084.

Extensive medicinal use is made of this vine. The Makuna Indians of the Río Piraparaná crush the leaves and flowers and apply the vegetal material to infected cuts and sores that refuse to heal; the Makuna name is *hě'-ně-gaw*. The Tukanos, living in the same general region, prepare the leaves and roots in a tea which is taken as a vermifuge; the Tukanos know the plant as *mee'-chee*.

It is interesting that Colonos—people from the interior regions of Colombia who have settled in the town of Caucaya—rub the leaves of *Gurania bignoniacea* on areas of the skin affected by fungal infections. This use may have been adopted from the Indians.

Gurania eriantha (*P. et E.*) *Cogniaux*, Diagn. Cucurb. 1 (1877) 16.

COLOMBIA: Comisaría del Amazonas, Río Putumayo, Florida. May–June 1931. *Klug* 2267.

The name of this vine amongst the Witotos of the Río Putumayo is reported to be *usiya-o*.

Gurania Guentheri *Harms* in Notizbl. 9 (1926) 990.

COLOMBIA: Comisaría del Putumayo, Río Sucumbios, Conejo and vicinity. April 2–5, 1942. *Schultes* 3514.

The Kofáns of the Río Sucumbios call this vine *ya-ma-cho'-ro* and take an infusion of the leaves as a strong vermifuge.

Gurania insolita *Cogniaux* in Engler, Pflanzenr. 66, iv, 275, 1 (1916) 209.

COLOMBIA: Comisaría del Amazonas, interior regions of Trapecio Amazónico. "Vine. Flowers scarlet; petals yellow." September 1946. *Schultes* 8235.

The Tikuna Indians prepare the crushed flowers as a poultice applied cold to boils and similar infected sores.

According to Jeffrey, this collection is mixed: the flowers belong to *Gurania insolita*, the leaves to *Cayaponia ophthalmica*.

Gurania pachypoda *Harms* in Notizbl. 9: 991, 1926.

COLOMBIA: Comisaría del Amazonas, Trapecio Amazónico, near Puerto Nariño, "Herbaceous vine growing in secondary growth among tree tops. Corolla fleshy, bright orange; anthers yellow." January 28–February 7, 1969. *Plowman, Lockwood, Kennedy et Schultes* 2329.

PERU: Departamento del Loreto, Río Amazonas, Iquitos and vicinity, Moyuy, "Corolla yellow, calyx orange. Vine climbing to 6 m in secondary growth", July 14, 1967. *Martin, Plowman et Lau-Cam* 1618.

In the region of Puerto Nariño at the mouth of the Río Loretoyacu, the Tikuna Indians employ the crushed leaves as a poultice to relieve headache.

In the Iquitos region, the vernacular name of this vine is reported to be *mashu-mikuna*.

Gurania rhizantha (*P. et E.*) *C. Jeffrey* in Kew Bull. 33 (1978) 357.

Dieudonnaea rhizantha (P. et E.) Cogniaux in Bull. Soc. Bot. Belg. 14 (1875) 239.

COLOMBIA: Comisaría del Amazonas, Río Loretoyacu. September–November 1944. *Schultes* 6064.—Interior regions of Trapecio Amazónico. “Woody vine, 3 inches in diameter. Flowers vermillion.” October 1945. *Schultes* 6753—Río Loretoyacu. September 1946. *Schultes et Black* 8392.

ECUADOR: Provincia del Napo, Río Aguarico, Dureno. January 3, 1966. *Pinkley* 67.—Same locality. February 22, 1966. *Pinkley* 135.

Tikuna women in the Río Loretoyacu area prepare a tea of the roots and woody stems of this common vine for a condition which, according to description, seems to be extremely irregular menstruation. Amongst the Kofáns, the plant has two names: *akie-ka-kie-sě'-hě-pa* and *cho-rok-o-pi'*; the leaves are dried and reduced to ashes which are spread on sores of the skin.

Gurania rufipila Cogniaux, Diagn. Cucurb. 1 (1877) 30.

COLOMBIA; Comisaría del Amazonas, Río Miritiparaná, Caño Guacayá. “Vine. Flowers vermillion. On flood banks.” March 4, 1952. *Schultes et Cabrera* 15809.

The Tanimuka Indians known this vine as *mee-ree-fee'-ka-no-ma-ka*. The stem and roots are reputedly toxic, and care must be taken not to confound it with similar species of *Gurania* which are being collected for medicinal purposes.

Gurania speciosa (P. et E.) Cogniaux, Diagn. Cucurb. 1 (1877) 16.

COLOMBIA: Comisaría del Amazonas, Río Loretoyacu, near Puerto Nariño, on trail to Río Putumayo. August 1964. *Raffauf* 106.

This collection gave a questionably positive alkaloid reaction to a Dragendorff spot-test on fresh material.

Gurania spinulosa (P. et E.) Cogniaux, Diagn. Cucurb. 1 (1877) 17.

COLOMBIA: Comisaría del Putumayo, Río Sucumbios, Santa Rosa.” Flowers red, yellow within. Vine.” April 7–8, 1942. *Schultes* 3565.—Río Caquetá, Puerto Limón. “Vine. Flowers orange; petals yellow.” March 17, 1955. *Schultes et Cabrera* 18718.

Comisaría del Amazonas, Río Loretoyacu. “Vine. Flowers orange.” September–November 1944. *Schultes* 6020; 6333.—Río Amazonas, Leticia. Sep-

tember 1946. *Schultes* 8218.—Río Loretoyacu. October 1946. *Schultes et Black* 8559.

In the region of the Río Loretoyacu, a tea of the roots is employed for the same condition (faulty menstruation) as *Gurania rhizantha*.

Gurania Ulei *Cogniaux* in Engler, *Pflanzenr.* 66, iv, 275, 1 (1916) 205.

COLOMBIA: Comisaría del Amazonas, Río Putumayo, Florida. May–July 1931. *Klug* 2120.

The Witoto Indians call this vine *maruchao*.

Lagenaria siceraria (*Mol.*) *Standley* in *Field Mus. Publ. Bot.* 3: 435, 1930).

In the Brazilian Amazon, the pulp of the fruit in the ripened stage is considered to be emollient. It is also employed as a laxative. A tea of the seeds is considered efficaceous against nephritis (*Le Cointe, loc. cit.*).